

## **REMARKS**

### **I. INTRODUCTION**

Claims 1-16 are pending in the present application. In light of the following remarks, Applicant respectfully submits that all presently pending claims are in condition for allowance.

### **II. THE 35 U.S.C. § 102(b) REJECTIONS SHOULD BE WITHDRAWN**

Claims 1-9 stand rejected under 35 U.S.C. §102(b) for being anticipated by Peot (U.S. Patent No. 4,777,393).

Claim 1 recites, “[a] system for joining an appliance body having a driving assembly therein to a driven member assembly which includes a workpiece element having a torsional axis of movement, comprising: a plurality of joining assemblies removably attaching the driven member assembly to the appliance body, wherein the joining assemblies are each separate from the torsional axis of the workpiece element, wherein the joining assemblies each include a mating member on one of a) the appliance body and b) the driven member assembly and an associated receiving element on the other thereof, wherein the mating members and the receiving elements have such a configuration, respectively, and mate in such a manner that there is substantially no lost motion for the workpiece element during operation of the appliance and such that *the driven member assembly is readily removable from the appliance body upon application of an axial force, and wherein the mating of the mating members and the receiving members is an interference fit.*

Peot discloses a motor unit 10 attachable to a housing 132 by means of locking pin members 58. Peot discloses a spring actuated locking plate inside of housing 12 of motor unit 10, wherein the locking plate engages “the grooves provided in locking pin members 58.” (See Peot, col. 7, ll. 41-47). The Examiner refers to the locking pin members and their corresponding holes in the motor housing to meet the claimed mating members and receiving members, respectively. (See 12/4/09 Office Action, p. 2). The Examiner asserts that the coupling disclosed by Peot is essentially an interference fit

because “there is still physical holding friction/contact between the mating members and the receiving members.” (See *Id.*, p. 3, ll. 3-4). Applicant respectfully disagrees. An interference fit is defined as

“[a] fit in which two toleranced mating parts will always interfere when assembled because the “male” part is larger than the “female” part. The resulting difference in sizes, also called the allowance, means that force is required to assemble the part. An interference fit fixes or anchors the two parts as if they were one.”<sup>1</sup>

A further explanation of an interference fit is “a fastening between two components which is achieved by friction after the parts are pushed together, rather than by any other means of fastening.”<sup>2</sup> The locking pin members (58) of Peot are not larger than the grooves in the locking plate so that they are coupled by friction. Accordingly, it is respectfully submitted that one of ordinary skill in the art would not consider the locking plate engagement of the grooves in the locking pin members (58) of Peot to be an interference fit. According to the Examiner’s reasoning, an interference fit is any fit where “there is still physical holding friction/contact between the mating members and the receiving members.” (See 12/4/09 Office Action, p. 3). Applicant respectfully submits that this reasoning is erroneous. As described above, one of skill in the art would understand that an interference fit is a specific structural recitation and Peot does not meet this recitation. Accordingly, Peot does not meet each and every recitation of claim 1 and therefore the rejection under 35 U.S.C. §102(b) should be withdrawn. It is also respectfully submitted that the rejections of dependent claims 2-9 should also be withdrawn.

Claims 10-16 stand rejected under 35 U.S.C. §102(b) for being anticipated by McDougall (U.S. Patent No. 5,617,601).

Claim 10 recites, “[a]n oral care appliance, comprising: an appliance body having a driving assembly therein; a driven member assembly which includes a workpiece element having a torsional axis of movement and wherein the workpiece element

<sup>1</sup> Definition of “interference fit.” Fundamentals of Graphics Communications, 3<sup>rd</sup> Edition. McGraw Hill. [http://highered.mcgraw-hill.com/sites/0072322098/student\\_view0/glossary\\_i.html](http://highered.mcgraw-hill.com/sites/0072322098/student_view0/glossary_i.html)

<sup>2</sup> Definition of “interference fit.” Wikia Technology. [http://engineering.wikia.com/wiki/Interference\\_fit](http://engineering.wikia.com/wiki/Interference_fit)

includes a brushhead; and a coupling structure for joining the appliance body to the driven member assembly, the coupling structure including a plurality of joining assemblies removably attaching the driven member assembly to the appliance body, wherein the joining assemblies are each separate from the torsional axis of the workpiece element, wherein each joining assembly includes a mating member from one of a) the appliance body or b) the driven member assembly and an associated receiving element in the other thereof, receiving said mating member, wherein the mating members and the receiving elements have such a configuration, respectively, and mate in such a manner that there is substantially no lost motion for the workpiece element during operation of the appliance, and such that *the driven member assembly is readily removable from the appliance body upon application of an axial force, and wherein the mating of the mating members and the receiving elements is an interference fit.*”

McDougall discloses a pair of lugs 513 located on plug part 509. The pair of plugs 513 are inserted into grooves 515 and subsequently twisted into internal grooves 517. In order to attach plug part 509 and brush part 508, McDougall discloses that “after brush part 508 has been push-fitted onto the casing part 506, it must then be rotated through a quarter turn to bring these into proper alignment. During this rotation, the lugs 513 move in internal grooves 517, engaging behind shoulder 519 so that the brush part 508 cannot be pulled off the casing part 506.” (See McDougall, col. 4, ll. 59-67). The Examiner refers to the lugs (513) and grooves (515) to meet the claimed mating members and receiving elements, respectively. (See 12/4/09 Office Action, p. 6). Applicant respectfully disagrees and directs the Examiner’s attentions to the definitions of an interference fit provided above. Rotating the brush part to move the lugs (513) into the grooves (515) is significantly different from *an interference fit*. The lugs (513) are not oversized with respect to grooves 517 or 515 so that friction holds them together. Applicant respectfully submits that the Examiner uses the same flawed reasoning as the §102 rejection under Peot. Accordingly, it is respectfully submitted that McDougal also fails to disclose or suggest “*the mating of the mating members and the receiving elements is an interference fit,*” as recited in claim 10 and that claim 10 is allowable. Because

claims 11-14 depend on and, therefore, contain all of the limitations of claim 10, it is respectfully submitted that these claims are also allowable.

Claim 15 also recites, “*the mating of the mating members and the receiving elements is an interference fit.*” Applicant, therefore, respectfully submits that claim 15 and its dependent claim 16 are also allowable over McDougall for at least the foregoing reasons presented with regard claim 10.

**CONCLUSION**

In light of the foregoing, Applicant respectfully submits that all of the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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